Changing Coalitions in Value Chains and the

Political Economy of Agricultural and Food Policy

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Abstract

Within the theme issue focus on the growing divergence between the "agriculture sector" and the "food sector" this paper focuses on how this changing divergence affects the political economy of agricultural and food policies.

1. Introduction

Political economy models of agricultural and food policy often consider "producers", "consumers", and "taxpayers" as the main agents to study the impacts of policies, the political incentives, and the impact on policy outcomes (Anderson et al 2013). One (theoretical) reason is its didactic use, i.e. to avoid unnecessary complications in deriving policy effects and identify equilibria. Another (empirical) reason is the absence of disaggregated information of policy impacts on various agents within (or outside) the value chain.

It is, of course, well known that in reality many more agents are affected – and also play a role in lobbying governments to introduce or remove certain policies. In agricultural and food policies "other agents" include input suppliers (such as land owners, seed and agro-chemical companies, and rural banks), traders, food processors, retail companies, etc.. These agents may be differently affected by policies, depending on the nature of the policy (eg whether the policy is targeted to the (raw) agricultural commodity or to a processed commodity) – or whether farm subsidies affect land or other production factors. As a consequence, these different agents have sometimes joined forces ("political coalitions") with farmers or with final consumers to influence policy makers in setting public policies.

In this paper we discuss how structural changes in the agri-food value chains affects these (potential) coalitions and thus the political economy of agricultural and food policies. There are several reasons why political coalitions may have changed over the past decades: the traditional power structures within value chains may have changed with some (sub)sectors growing and others declining with economic development, new technologies have brought new players into the value chains, new policy instruments have been introduced (or considered), etc. As an illustration, consider

changed coalitions because of "new players" that have emerged, or because the same players are interested in "new things".[1]

New Kids on the Block

New players have emerged for a variety of reasons. Awareness of environmental issues and the lobbying of environmental organizations has increased in recent decades. In the US the 1930s Dust Bowl already lead to the introduction of a major conservation payment program. In the EU environmental concerns have been less important and environmental NGOs' lobbying only had limited influence on agricultural and food policy in recent years.

Technological advances, such as biotechnology and genetically manipulated (GM) crops, have created new vested interests – and changed these of others. In the 1970s there was no pro- or anti-GM lobby since there was no GM. Biofuels have emerged as an important factor in agricultural markets and food policy with oil prices rising and with the search for renewable energy sources.

The emergence of new policies, such as crop insurance subsidies, have brought new sectors, such as insurance companies, into to the lobbying game for farm support programs. Growing concentration in retail and the emergence of preferred supplier systems have made the retail sector a more powerful sector in the value chain. This may benefit consumers since for many agricultural policy issues consumer and retailer interests are aligned and their political coalition may be reinforced by growing retail concentration.

Old Kids Fighting for New Things

[1] An issue we do not cover is how the emergence of other factors and technologies outside the value chain affect policy-making related to agricultural and food policies. One example is how the growth and technological change of commercial mass media has influenced agricultural and food policies (see e.g. McCluskey and Swinnen, 2011; Olper and Swinnen, 2013).

Consumer interests have changed. Traditionally consumer interests were sufficient food availability and low food prices. Over time, consumers have become more concerned with the safety and quality of their food, and with environmental and ethical standards of their food. Yet, the recent food price spikes and economic crisis have brought the cost of food back to the table as a major issue.

With income growth and globalization interest in local products have taken on a new form. Consumers are interested in local foods, while farm groups see it as a potential way of marketing and protecting their products. At the policy front this has e.g. resulted in regulations on geographical indications (GI) – an issue which has created tensions in trade negotiations.

Outline of the paper.

In this paper we will study some of these changing coalitions and their implications for public policy. The paper is organized as follows. Section 2 provides a brief historical review of changes in the value chain. Section 3 discusses some conceptual issues related to how changes in value chains influence (changing) political coalitions and influence. The rest of the sections present cases how changes in political coalitions in the value chains have affected agricultural and food policy in Europe and the USA in the 20th and 21st century. The cases include historical changes in agricultural protection with changes in the relative strength of various actors (Sections 4 and 5); the growth of environmental interests (Section 6); how recent food price spikes and economic crises changed political coalitions (Section 7); the impact of changes in concentration in the value chains (Section 8) and of changes in consumer concerns in recent decades (Section 9); and the emergence of new players and policies in the agri food value chains, such as (bio-)technologies, biofuels and insurance industries (Section 10).

2. Structural Changes in Agricultural and Food Value Chains.

Data to document the long run changes in the value chain are limited. For example there are no good indicators to measure the historical growth of agribusiness etc. We discuss here some key trends in the agri-food value chain using available indicators from Europe as illustration.

In all European countries agriculture was a much more important share of the economy in the 19th century than it is today. With the industrial revolution, agriculture's share declined strongly, albeit with major differences between countries (see figure 1a). In the UK, where the industrial revolution started, agricultural employment had fallen to 20 % of total employment by 1880. On the continent, the shares were lowest in Belgium (less than 30 %) and the Netherlands (35 %). In contrast, farmers and farm workers still accounted for almost one-half of the population in France and Germany in 1880. By the 1960s, the employment share was close to 5 % in the UK and Belgium and around 10 % in the Netherlands, Sweden and in Western Germany, as the more agricultural part of the country was separated into East Germany. Only France still had a much larger share of its population in agriculture (around 20 %).

Everywhere and always the contribution of agriculture to economic output was lower than its share in employment (figure 1b). By the late 19th century the share of agriculture in GDP had fallen to around 10 % in Belgium and the UK while it was around a quarter of total output in France and around a third in Germany. By the 1960s these shares had fallen to around 6 % or less in all these countries. The declining share of agriculture has continued and that there has been a convergence to low levels among European countries. The shares in employment have fallen to less than 5 %. Agriculture's contribution to GDP is even less: in the richest countries it is now below 2 % -- a trend which was referred to by Peter Timmer (2009) as towards "A World Without Agriculture".

The share of food in consumer expenditures obviously also reduced substantially. Food expenditures remained a very large share of total consumer expenditures well into the 20th century in several countries (figure 2). However, these aggregate figures hide the fact that there were major differences among groups in society, with the poorest spending much more on food and major changes within the broad category of 'food' consumption. For example, in Belgium the share of staple foods, such as bread and potatoes, declined from around 40 per cent of total expenditures in 1850 to around 10 per cent by 1920, despite that the aggregate share of food expenditures remained almost constant over this period (at 60 per cent (Swinnen *et al.* 2000)). The food shares declined particularly fast in the decades after the Second World War as incomes increased rapidly in Europe.

As the share of food in consumer expenditures continued to decline, the share of "consumer food expenditures" that goes to "agriculture" has declined even more with economic development. Processing, packaging, marketing and retailing of food are taking up a growing share. Today, the cost of agricultural ingredients is only a small share of the price of the final food products: in the EU it is merely 5 percent of the cost of bread, just 20 percent for meat and livestock products (European Commission 2007). Moreover, health, quality, environmental and ethical attributes of food consumption have become increasingly important (see further).

Data on food manufacturing and retail are only available for the more recent period (see figures 3). Employment and GDP shares of food manufacturing are in the 1.5 % to 2.5% interval, not so different from those of agriculture. The shares have also been falling since 1975, albeit at slower rates than for agriculture. The retail sector is considerably larger with around 4% of GDP and 8% of employment, but these numbers include also non-food retailing. The shares have been relatively stable over the past two decades.

Simultaneously, within the agricultural sector, specialization, technology and factor use changed. Agricultural production became increasingly capital intensive and depending on external inputs. Capital intensity increased particularly in the 1950s and 1960s. With the growing importance of food processing and retailing on the downstream side of the value chain, the increased use of external inputs increased the importance (and the economic interests) of various industries that supplied inputs (including capital) to farmers in the upstream segment of the value chain. With new technologies emerging, new interests have been created.

Not only has the share of non-farm economic activities in the agri-food value chain increased, the structure of these segments is quite different from agricultural production. In most European countries family farms dominate, and even in countries where there are many large farms (UK, Germany, Slovakia, etc) the concentration is much less than in most other segments of the chain.

Moreover, concentration has generally increased in the food supply chain outside the farmer and (final) consumer segments. Consolidation in food processing and retailing companies occurred through natural growth as well as through mergers and acquisitions. Large food and retail companies are also increasingly spreading globally, through foreign direct investments. Especially the retail sector has concentrated in recent years, more than the food manufacturing/processing sector. In fact, in reports from the 1970s, there was mostly concern about the high concentration and monopoly power in the food manufacturing sector and the weak bargaining position of the small retail companies. Until the 1970s, food retailing was a largely fragmented sector. For example, the leading 5 firms controlled only 8-9% of national retail goods sales in the UK in 1961 and it has only slightly increased to 14.4% by 1982. The real wave of consolidation of the retail sector in the US and EU largely took place in the 1990s. In the US, the combined market share of the four largest grocery retailers increased from 14% in 1984 over 22% in 1994 to 55 % in 2001 (Swinnen and Vandeplas,

2010). Concentration has continued in the past decade. In some countries in Europe, the market share of the largest five food retailers (i.e. the C-5 concentration ratios) is over 80% (European Commission 2014).

3. Some Conceptual Issues

Several factors play a role in how (changes in) the divergence between "agriculture" and "the food industry" and other agents in the value chain affect the political economy of agricultural and food policies. Three key aspects are: (1) the nature of the policies, (2) the costs of collective action, and (3) how structural changes affect incentives for political action.

The Nature of Policies and Coalitions in the Value Chain

The nature of public policies influences the structure of the political game by determining the possible coalitions – and vice versa. Consider a simple value chain as illustrated in Box 1. While this value chain is more elaborate than the producer-consumer dichotomy, it still ignores many potential other value chain issues, such as competition between feed and food (and thus livestock versus crops), between food and fuel use, "environmental interests", etc. Yet, despite its simplicity it is useful to illustrate potential coalitions.

Agricultural and food policies typically intervene in specific parts of the value chain. The type of instrument used and the "location" of intervention has a major impact on the possible political coalitions. The nature of the policy instrument will determine whether the interests of farmers and

processors or other agents are aligned or not (i.e. whether they have opposing or conflicting interests in setting public policy interventions).[2]

Consider trade and price interventions, such as import tariffs and price support measures, which have long been the dominant way of supporting farmers in European agriculture. The use of tariffs goes back centuries. Price support measures, combined with variable import tariffs and export subsidies, were the main component of the EU's Common Agricultural Policy in the 1970s and 1980s.

Import tariffs may differ strongly between processed food products (e.g. pasta or specific cheeses) and agricultural products (e.g. cereals or milk). In case import tariff and price interventions are at the level of the agricultural commodities, the food processors (buyers of cereals or milk) may have opposing interests to the farmers, since they are "the consumers" – even if they can pass part of the increased costs on to "final consumers". However, "agricultural policies" (such as tariffs, import quota, or price interventions) often do not apply to the raw agricultural products as they are sold by the farmers, but to products which have undergone a certain level of processing or marketing. For example, it is typically not the raw milk or the sugar beets that are traded or purchased by government agencies but processed products such as milk powder, cheese or sugar. Hence, interests of food processing companies involved in early stage processing will often be aligned with these of farmers, while those of further processing may be opposite. Take the case of sugar: the "production side" includes sugar processing companies and the farmers producing sugar cane or sugar beet (and other agents, such as land owners and agribusinesses supplying inputs to the farmers). The "consumer side" also includes food companies. Some sugar is "consumed" directly by households, but most is sold to the food industry, which uses the sugar in various products sold to retailers and only then

[2] Not surprisingly, this makes the choice of the policy instrument the subject of lobbying itself. In this paper we do not explicitly analyse this issue. For studies on the endogeneity of instrument choice in agricultural and food policy, see e.g. Swinnen *et al.* (2012) and references there in.

households consume the sugar. This separation is well illustrated by the current debate on the ending of the sugar production quotas in the EU. The EU's beverage and confection industries and sweetener companies have lined up to lobby the EU decision-makers against the extension of the EU sugar quota; while the sugar producing companies are lobbying in favour.

This does not only apply to policies downstream in the value chain but also to upstream policies. For example, regulations which affect input prices (such as fertilizer subsidies or land regulations) may involve very different political coalitions than policies where there are important leakages to (benefits for) the owners or producers of farm inputs (such as price support or direct payments which increase land prices). In some of these regulations, interests of input suppliers and farmers will be aligned, in others they will conflict.

For example, landowners and farmers have always had a complex relationship. In countries where farms own most of their land, their interest coincide. However, in many parts of the world farmers rent a considerable part of their land – and there have been considerable changes on this through history (Swinnen *et al*., 2014). In Europe, a hundred years ago land was at the centre of agricultural policy reflecting major economic and political conflicts between landowners and farmers. At the end of the 19th century and early 20th century landowners and tenant farmers fought over land rental conditions. These conflicts resulted in a series of land regulations (and taxes) (Swinnen, 2000). In recent decades landowners and farmers have joined forces in lobbying for agricultural subsidies. Farm subsidies, either linked to production or to land use, have spilled over into high land prices and rents creating a coalition between farmers and landowners. In recent EU policy discussions, landowners have not opposed moving from trade-distorting price support and land payments towards non-trade-distorting decoupled farm payments, since the payments are still linked to land use and thus keep land prices high (Ciaian and Swinnen, 2009; Ciaian *et al*., 2013).

Effectiveness of Collective Action.

Obviously if there is a change in the coalition structure by agents switching sides, or new agents joining, this could change the political equilibrium. But changes in coalitions, or in the structure or organization of current coalition members could have non-linear effect if they would lead to more (or less) effective political activities.

One key element is the size, concentration and wealth of vested interests (reflected in the number and wealth of agents) and how this affects their influence in the political process through Mancur Olson's (1965) "logic of collective action". Olson's insights have been widely applied in studying the political economy of agricultural and food policies (Anderson *et al.* 2013). In order to effectively influence political choices, interest-group members must act in unison. They must form an organization that can mobilize resources and direct individual action. The greater the number of politically active members in an organization and the more resources at its disposal, the greater will be its political power base. However, as Olson argues (1965), individuals in the group often prefer to free ride.

Factors contributing to lower costs of political organizational and better control of free riding all enhance the group's political power. Geographic concentration of group members, a strong commitment to a broadly shared ideology, and low communication costs (which can result from members' organized activities, such as trade and professional associations) contribute to cohesiveness within the interest group and decrease the organizational set-up and maintenance costs. Such forces strengthen the group's political power.

This collective-action theory predicts changes in the political equilibration overtime. In poor countries food consumers are often concentrated in cities with lower political action–coordination and

enforcement costs relative to farmers, who are dispersed in rural areas. However, as the economy develops, and especially, as the share of agriculture in employment declines and rural infrastructure improves, the cost of political organization for farmers decreases. This cost reduction is likely to increase the effectiveness of farmers' representation of their interests and, as a consequence, of their lobbying activities[3].

Researchers debate whether changes in relative collective-action costs for farmers alone can explain major changes in agricultural policies. Although rural infrastructure and information have improved significantly as countries have developed, even in developed countries, there remain a very large number of farmers (de Gorter and Swinnen 2002). The persistence of such large numbers of farmers, whose interests are not necessarily aligned, might imply that collective-action obstacles still exist**.**

However, other agents in the value chain, such as food processing and retail companies and agribusinesses tend to be less fragmented and more capitalized than the farms. So they may be more effective in organizing for political action. Hence coalition-formation may have important effects.

Structural Change, Political Incentives and Policy Costs

Structural changes in the value chains may influence the political equilibrium through inducing changes in political incentives (on the demand and supply side). Many agricultural and food policies are designed to alter the "without-policy" income distribution. Growth and decline of specific sectors (e.g. with economic development) affects the inter-sectoral distribution of income.

[3] The nature of agricultural structures also may determine the effectiveness of collective political action, but there may be offsetting effects. Traditional arguments predict that a sector with mainly large-holding farmers can more easily overcome collective action problems because its members are typically fewer and its collective-action costs lower compared to the political rents they receive. However La Ferrara (2002) argues that inequality among farmers may make it harder for collective action to succeed because small and large farmers have conflicting incentives and because free riding is likely to be more common in a heterogeneous group setting. Historical evidence from Europe also supports this result (Schonhardt-Bailey 2006; Swinnen 2009).

This process creates political incentives—both on the demand (e.g. farmers') side and the supply (politicians') side—to exchange government transfers for political support. When farm incomes decline relative to other sectors, farmers will look for non-market sources of income, such as government support, either because the return to investment is greater from (political) lobbying activities than from (economic) production, or because the willingness to support politicians grows as the political rents that are generated increase.[4]

Structural change also affects the costs and benefits of policies (Anderson 1995; Swinnen 1994). For example, when consumers spend a large share of their income on food, the per capita costs of agricultural price support is proportionately much higher than when consumers spent much less of their income on food. Vice versa, for a given costs for consumers, farmers benefit more when there are fewer farmers – concentrating the benefits. The per unit political cost of subsidizing farms thus decreases as the economy becomes richer and less agrarian. Even though the share of farmers in the voting population declines, there is less opposition to protecting them. De Gorter and Swinnen (1993) have shown that under plausible assumptions, the second of those two effects dominates.

4. Political Coalitions and Agricultural Protection in Europe[5]

The importance of political coalitions in value chains can be seen from when they are effective and when they are not. History provides many examples. Here I summarize a few to illustrate key insights.

[4] The nature of the mechanism through which these changing political incentives operate has been modeled in various ways. For example, Swinnen (1994) has used a politician-voter interaction model, in which differences in marginal utility drive the result. Others, such as Freund and Özden (2008) and Tovar (2009), focus on the importance of aversion to loss in determining political reactions in order to explain why declining sectors, such as agriculture, receive support. That work builds on the earlier notions of a conservative social welfare function (Corden 1997) and of senescent industry support (Hillman 1982).

[5] This section draws on Swinnen (2009), which has more details.

Policy Reactions to the Agricultural Crisis of the End of the 19th Century

The often heralded period of free trade in the 19th century comes to an end when cheap grain imports hit the West European markets after 1875.[6] Western Europe grain prices fell by almost 50 per cent over the period 1880–95. The dramatic changes in the agricultural markets induced strong pressure from farmers on governments to intervene. Reactions of governments in Europe differ. The governments of France and Germany introduced import tariffs to protect their grain farms. In contrast, countries such as the UK and Belgium (as well as the Netherlands and Finland) did not impose import tariffs for grain.

The difference in policy response reflected different political coalitions. France and Germany were characterised by a large agricultural population, little industrialization, and an important crop sector. In France, crops made up more than 70 per cent of total agricultural production during the 19th century. Belgium and the UK were already quite industrialised by the time of the agricultural crisis. In both countries a coalition of workers and industrial capital opposed tariffs because they benefited from low food prices (and thus low wages) with cheap grain imports. While the UK landlords had always been very powerful (e.g. through the representation system in parliament) their influence was waning and they were now confronted with a strong opposition of labour and industrial capital, who had gained increasing political power.

In addition, many 'agricultural interests' did not support import tariffs. The main group hurt by the low grain prices were large landlords, mostly located in the southern regions of England. However, many of the other actors in agriculture actually favoured low grain prices. Livestock

[6] The sharp reduction in European grain prices was due to a dramatic increase in imports from Canada, the United States, Argentina and Russia. There are two reasons for this. First, there was a major expansion of agricultural production, especially in the United States where land was abundant and cheap. Second, technological innovations dramatically decreased production costs, both through agricultural machinery which allowed for the exploitation of vast areas, and through transport prices, as the steam engine allowed much cheaper transport via trains and the steam boat.

farmers, mostly located in the northern part of the country, benefited through low feed prices. The English landlords were not even supported in their demand for protection by those who worked on their farms. Farm workers were very poor and they benefited more from low prices of staple food (grains) than they lost from the negative pressure on their wages, which were strongly influenced by industrial wages.

Moreover, in feudal systems such as the UK, small farms and tenants were more concerned with their tenure rights than with import tariffs at the end of the 19th and early 20th century. They saw landlords and large grain farms as their main problem, not cheap imports. Their political struggle focused on improving tenure conditions by opposing landlords, rather than forming a coalition with them to increase farm prices (Cannadine, 1992; Swinnen, 2000).

In Belgium, the coalition against grain tariffs included other agents from the value chain. Import tariffs on oats were opposed by the transport industry and the coal mines, where horse power was important. Tariffs on barley were opposed by the brewing industry. This coalition prevented protection against barley imports, although oats tariffs were later introduced as a compromise, with more farmers producing oats and no opposition from brewers (Swinnen et al 2001). An additional vested interest was the Antwerp harbour, an important employer and opposed to any tariffs that would limit the trade volume.

Growing Agricultural Protection after World War II

Agricultural protection increased with the political organisation of farms. While landlords and large farms were already politically powerful in the 19th century, many new farm organisations, in particular representing small farmers, emerged during the crisis, and a network of rural organisations grew in importance. In addition, voting rights are extended to small farmers and farm workers in the

beginning of the 20th century in many European countries. These factors had relatively limited impact on the protection debate at the end of the 19th century because by the time the organisations were working effectively and small farmers and workers had voting rights, the agricultural crisis had subsided and World War I had started. However these political developments did enhance the influence of farmers later in the 20th century.

From the 1950s onwards, farmers' incomes fell behind incomes outside the agricultural sector. Economic growth was strong in the rest of the economy and the income gap between farmers and people working in other sectors increased strongly. The relative income situation of farmers became a central issue in agricultural policy. Farmers pressured European governments to intervene in the market to correct these growing income gaps by supporting farm incomes.

This led to a series of government interventions in European agriculture in the 1950s and 1960s. Minimum prices, import tariffs and quotas, etc. were introduced and became the building blocks on which the EU's Common Agricultural Policy (CAP) was constructed. The introduction of high guaranteed prices in the CAP resulted in large trade distortions in the 1970s and 1980s. This lead to so-called "wine lakes" and "butter mountains", a budget crisis and to increasing tensions with trading partners in the world market (Josling, 2010).

The growth of agricultural protection was associated with the growth of cooperative agribusiness and food-processing companies. The growth and concentration of agribusinesses and food-processing companies created a strong political coalition with farm interests in lobbying for agricultural policies (Anderson 1995).[7] Since farm lobbies and agribusiness interests were

[7] Gawande and Hoekman (2006) and López (2008) also find a significant influence of agribusiness and food companies' political contributions on US agricultural policies.

increasingly well capitalized and concentrated, they became an important force in orchestrating public policies that benefited their interests.[8]

Consumer interests also changed. As incomes grew and value chains became longer with more processed products, consumers became less sensitive to policies affecting agricultural prices. Moreover, on a continent twice devastated in a fifty-year period and twice facing food shortages during war times the argument of sufficient food through local production touched a nerve among consumers. Politicians who had to address the nation's basic concerns and consumers who faced hunger and food shortages during times when food imports and long-distance food supplies were interrupted were sympathetic to the call for supporting domestic food production.

In summary, after the Second World War, all factors in favour of agricultural protection and more farm support to agriculture came together. Most importantly, opposition of industry and workers in the rest of the economy declined. With strong growth in the rest of the economy, the share of food in total consumer expenditures and its impact on wages declined strongly and with this so did opposition to protection from workers and industry. At the same time, farm incomes fell increasingly behind incomes in the rest of the economy, increasing demands for agricultural support. Farm demands were now politically influential since political organisations of farms were well established and because of their votes. In addition, farm-related cooperatives and business organisations in the agri-food sector became important interest groups, with, for example, agricultural credit cooperatives, dairy and sugar processing companies joining farm unions in actively lobbying for government support and import protection for their sectors. The combination of these factors caused an important and structural shift of the political coalitions, and the policy equilibrium, towards more protection – resulting in high levels of government intervention and support to agriculture in the decades following

[8] Francois et al (2008) and Cadot et al (2004) show that protection escalates with the degree of processing.

the Second World War, as is illustrated in figure 4 (with the nominal rate of assistance to agriculture (NRA) measuring the level of protection).

5. New Coalitions and CAP Reform in the EU

The 2003 CAP reform under Commissioner Franz Fischler is by many experts identified as the most radical reform in CAP history. Others see it as the culmination of three decades of reforms.

In the 1970s and 1980s, pressure increased on EU policymakers to reduce the CAP distortions. The EU had previously been a major net importer of agricultural and food products, but the CAP caused a strong reduction in imports and growth of subsidized exports. The most important outside pressure came from exporting nations such as the US and Australia, and from developing countries and international organizations that accused the EU of causing poverty and hunger in poor rural households.[9] Pressure came also from inside the EU, primarily from ministers of finance concerned about the cost of subsidies (Josling 2008; Moehler 2008).

The first reforms came in the mid 1980s with the introduction of production quotas in the sugar and dairy sectors. These quotas limited the size of subsidies and surpluses, but most production was still subsidized and a substantial amount was still exported with subsidies. In the early 1990s price support and export subsidies were replaced by payments based on the area of land under cultivation, the so-called "direct payments". These reforms were strongly influenced by the GATT[10] negotiations and made the "Uruguay Round Agreement on Agriculture" (URAA) possible. The

[9] For example, organizations such as the OECD and the World Bank emphasized how the EU (and other countries including the U.S.) were hurting the poor by contributing to low agricultural and food prices through their agricultural subsidies. Non-governmental organizations (NGOs) took the same position. See Swinnen (2011) for details.

[10] General Agreement on Tariffs and Trade.

reforms were reinforced by the so-called Agenda 2000 reforms in 1999 to allow the expansion of the CAP to the new Eastern European member states in 2004.

Despite their reforms, there were growing demands for further, and radical changes. Several factors came together in the period around 2002, creating what I called a "perfect storm": strong demand for radical changes in the CAP and sufficient pressure to overcome opposition (Swinnen 2008).

Then-EU Commissioner Fischler argued that "the CAP had lost its legitimacy among the EU public" around 2000. The CAP was seen as hurting EU trade interests, as it had been a major stumbling block in trade negotiations.[11] In addition, there were increasing concerns about the negative effects of agriculture on the environment and the climate, and when several food safety and animal welfare crises hit the EU in the late 1990s (see above), the CAP not only appeared to be ineffective in addressing the problems and the food safety concerns of EU consumers, but instead to worsen the situation. Hence, when Ministers of Finance were searching for budget cuts the CAP immediate came into focus.

In response, Commissioner Fischler and his team designed a strategy to maintain support for European agriculture by creating a new political coalition for the CAP by addressing trade, environmental and food safety concerns. The first key element of the reform was to eliminate or strongly reduce the distortions caused by the CAP on international markets – thereby addressing the trade concerns. The proposal was to fully "decouple" farm payments through a "single farm payments" (SFP) system. Subsidies would no longer be related ("coupled") to what was produced, but farmers were given a fixed payment. To address environmental concerns, these payments would

[11] The EU expected that further cuts in agricultural subsidies would be needed in the next WTO round.

be conditional on farmers addressing certain environmental conditions, such as preventing soil erosion, managing water and avoiding the deterioration of habitats – the so-called "cross-compliance" requirements. The third component, food safety concerns, were addressed in a separate policy (see further).

The 2003 negotiations transformed the politics-as-usual of the CAP. Traditionally, the main pressure group had been the farm unions. Now environmental (and consumer) groups played a more prominent role in the CAP reform debate than previously. The combined reforms resulted in a strong decline in EU subsidies affecting production and trade. Figure 4 illustrates how the NRA fell strongly over the past two decades: from on average more than 50 percent in 1991–95 to just 11 percent in 2005–10.[12]

Some argued that farm unions were less influential. Others argued that the farm organizations understood that they needed this new coaltion to solve the CAP subsidies. In fact, with Fischler's coaltion, more severe budget cuts were avoided. While the reduction in coupled farm support has been strong, from the mid 2000s onwards the vast majority of EU farm support remained at more than 50 billion euros per year, of which 35 billion euros were given as decoupled direct payments. From this perspective, the Fischler reforms contributed to the survival of the CAP payments, rather than to their demise.

6. Environmental Concerns

As we explained in section 5, the 2003 reforms brought environmental organizations as a major player into the agricultural policy discussions in the EU. This was much later than in the USA.

[12] Similar conclusions come from OECD estimates on agricultural support in the EU..

However, in both countries the food price spikes in the late 2000s seem to have limited growth of their influence.

Conservation Payments in the US

Conservation has a long history in U.S. agricultural policy dating back to the Dust Bowl era of the 1930s. Environmental concerns took on new prominence in the 1985 and 1990 Farm Bill: the latter was entitled the "Food, Agriculture, Conservation and Trade Act." Farm groups seeking to limit agricultural production—thereby raising prices—joined a political coalition with environmentalists to establish a Conservation Reserve Program (CRP) for the protection of erodible land. Farmers can place their land in the CRP in exchange for CRP payments. In 2012, 27 million acres of U.S. cropland, involving nearly 400,000 farms, were in the CRP (USDA 2013).

The latest negotiations on the 2014 Farm Bill do not show an increased influence of environmental interests. The budget for CRP payments has been relatively constant over the past decade and is not planned to change significantly. In fact, with higher commodity prices after 2005, CRP payments have become less competitive, and fewer farmers are interested in CRP (Cuellar *et al.*, 2014).

Greening Farm Payments in the EU

A decade after the 2003 Fishler CAP reforms, hopes were high among the environmental organizations that, given the need to address climate change and other environmental concerns, important further changes could be made in the 2013 CAP reform to enhance the environmental impact of CAP payments for the 2013-2020 period. Policy discussions focused on how to reform the farm payments, as increased pressure from taxpayers and demands from environmental groups

challenge the current payment structures. The Commission proposed to maintain the key elements of the CAP as they existed at the time, but with changes in the nature, structure and distribution of the payments. One key element was greening of the payments as farm support would be better linked to environmental objectives.

Farm organizations lobbied to secure the payments. They were supported in these efforts by landowners, who are benefiting from spillover effects of the land-based payments (Ciaian et al., 2013). Farm associations formed a strategic coalition with environmental groups to lobby the Ministers of Finance and Heads of the EU member states for as a large a CAP budget as possible during the economic and financial crisis – much like the 2003 reforms. However, as soon as the budget for the 2014-2020 CAP was fixed (in early 2013), farm groups started lobbying to remove or weaken environmental constraints on the payments (Hart, 2015; Matthews, 2015).

Farm organizations targeted the Agricultural Committee of the European Parliament (EP) as a key focus for lobbying activities. The EP was for the first time involved in the actual CAP decision-making. The Agricultural Committee of the EP, where the key positions were prepared, included many members who are linked to traditional agricultural interests.

The EP and the council of Ministers both introduced significant amendments to the environmental conditions in the Commission reform proposals. In the end, environmentalists were very disappointed with an outcome which some have described as a "green wash" instead of "greening" (Erjavec et al, 2015; Hart 2015).

7. Food Price Spikes, Economic Crises and Public Policy in the 21st century

A crucial factor in the successful lobbying of farmers in the EU against more environmental constraints and the fall in interest of US farmers in the CRP are the rising agricultural and food prices in the late 2000s. The rising food prices caused concern among poor consumers, many who were

already suffering from the most severe economic crisis since the 1930s. Producing and securing food suddenly re-emerged as an important policy concern. Environmental concerns gave way to food security and production objectives.

Hence, somewhat paradoxically, after the EU had gone through decades of reforms to reduce the negative (downward) impact of the CAP on global food prices downward, the world became concerned with food prices heading in the other direction. After the price spikes of 2007–08, international organizations, NGOs and many experts pointed at the hunger and poverty effects of high food prices (Swinnen and Squicciarini, 2012).

Policy reactions took on a different form in the EU than in the USA because of the nature of the welfare system. In Europe, government support for poor consumers in the EU now occurs mostly through social spending, not through food market regulations. Social groups that are particularly vulnerable to food costs, such as the elderly, the unemployed and the poor, can draw on social security resources.

Average consumer prices in the EU increased just slightly over the 2005–12 period, with real food prices only 5 percent higher in 2012 than in 2005. With European consumers spending on average 15 percent of their household budget on food, food price changes therefore had a limited impact on the average EU households' overall welfare. However, there are significant differences in the EU: the share of the household budget spent on food varies from 10 percent in the UK to more than 40 percent in Romania.

Unlike CAP subsidies, social policies, such as unemployment benefits, pensions and disability payments, are still the responsibility of individual member states. The increase in food prices induced pressure from consumers, in particular the poorest, to increase social spending. Increases in other prices, such as those for energy and transport, reinforced this pressure. Even as the financial and

economic crisis constrained governments' budgets, social expenditures in the EU increased by approximately 7 percent between 2005 and 2010. Not surprisingly, there are large disparities among member states, but spending on social security benefits increased in almost all of them (Swinnen *et al.*, 2013).

Food Stamps and the Farm Bill in the USA [13]

The coalition between consumers and producers interest in agricultural policy is much more elaborate in the US. The Supplemental Nutritional Assistance Program (SNAP, also known as "*food stamps*") is a major item of the US's "agricultural policy", often referred to as the "Farm Bill". SNAP payments go to families with net-incomes less than the poverty line. In 2012, some 47 million Americans—about 15% of the entire nation—received SNAP payments, and the $112 billion consumer package is now the core of USDA's budget.

This huge safety-net consumer program is located within the USDA's budget rather than within the Department of Health and Human Services, the home for virtually all other welfare programs, for historical and political reasons (Cuellar *et al.*, 2014). The food stamp program was originally designed to distribute surplus agricultural commodities to assist poor and needy families in the 1930s and later became a part of President Kennedy's "War on Poverty". Because the 1930s food stamp program was within the USDA, due to strong links with agricultural political interests, it remained there. Yet, the current growth is due to what Cuellar *et al.* (2014) claim is "arguably the most prominent example of coalition politics in American food and agriculture policy", i.e. the cooperative dynamic between supporters of domestic nutrition assistance and supporters of domestic farm subsidies to pass the Farm Bill. This entails an informal understanding whereby members of

[13] This section draws on Cueller *et al.* (2014).

Congress who support domestic nutrition assistance either vote in favor of, or remain silent on, proposals to subsidize farmers, as long as domestic nutrition assistance programs are also funded adequately. In order to ensure the passage of a bill on either farm subsidies or nutritional assistance, both must be included in the same legislation. The Farm Bill is thus an omnibus piece of legislation requiring the support of both sides. What makes this piece of legislation particularly interesting is that the provision of nutritional assistance provides a safety net for low-income consumers, particularly in times of high or volatile food prices caused in part by agricultural policies like the corn-ethanol program. The convergence of special interests creates a peculiar equilibrium in U.S. food and agricultural policy that is extremely difficult to disrupt.

The recent growth of SNAP payments is related to several factors. First, while the U.S. is a rich country, there are many poor people in the U.S., especially among minority groups. Second, the SNAP program is designed to be counter-cyclical with respect to growth in the U.S. economy. Between 2007 and 2012, U.S. unemployment rates rose from 4.6% to 8.1%, one reason why SNAP expenditures rose strongly. Third, rising food prices after 2007 were translated into additional costs for the SNAP program.

Not surprisingly, the large size of the current food stamp program made the traditional farm constituencies nervous and threatened the rural-urban political coalition that had been necessary to pass farm bills. In recent years, the need to reduce fiscal deficits limited the amount of money that could be spent through the Farm Bill, placing stress on "the grand coalition". It encouraged the two sides to seek the best deal they could get individually. As a result, in 2013 the US Congress was unable to pass legislation reauthorizing the Farm Bill. After a crisis however, the two sides came together again and joined forces in passing a new Farm Bill in 2014.

8. Changes in Market Power and Policies

How did the changes in concentration in value chains affect policy? Market power in food supply chains has emerged as an important economic issue and a highly sensitive item on the policy agenda all around the world. A typical example is the Polish government's claim that "Food retailers in Europe have largely failed to pass on market price reductions to consumers, keeping their margins high and causing many farmers to abandon agriculture because of poor incomes" (forexpros.com, May 25, 2009). Similar claims that large, often multinational, retailers and food companies are depressing prices because of their market power have been made in many countries around the world.

However, the impact on policy itself is not obvious. There are several factors at play. To start, an important factor is that increases in concentration are not necessarily an indication of distortions warranting public policy corrections. Increased concentration may lead to market power but also to efficiency gains with scale economies, reduced transaction costs and enhanced bargaining power in value chains. These arguments have been raised by the retail sector, and by economists and legal scholars analyzing competition issues.[14]

Empirical evidence on buyer power is weaker than one may suspect. Sexton et al. (2006) mention that it is practically impossible to measure the retailers' buying power, as prices paid by retailers to their suppliers are "typically not revealed". Dobson *et al*. (2001) fail to find clear evidence of abuse of market power vis-à-vis farmers. The UK Competition Commission in 2000 reviewed complaints by farmers' organizations that supermarket chains pay very low prices for farm products, but fail to pass low prices on to consumers and concluded that the low producer prices were mainly a

[14] See Swinnen and Vandeplas (2010) for a review.

result of excess supply, and had been passed on to consumers, or were compensated by other cost increases.

Another factor is that consumers, and in particular low income consumers, despite growing concentration, appear to benefit from retail competition. The 2004 enlargement of the European Union with poorer Eastern member states also provides an illustration of the benefits from retail competition. Increased competition in the retail sector is argued to be one of the main reasons why consumer food prices increased less than predicted with EU accession in the new member states. In 2014, the EU Commission published a communication in which it stated that it does not foresee regulatory action at EU level and does not prescribe a single solution to address the issue of unfair trading practices in food supply chains, but rather encourages operators in the European food supply chain to participate in voluntary schemes, like the Supply Chain Initiative.[15]

Other factors that have refrained the EU from more market regulations are probably the the fact that a return to price interventions would imply a major turnaround in 20 years of reforms of the CAP, which has gradually shifted from price and trade regulations to direct payments to support farm incomes. There is little evidence that more powerful retailers played an important role in this policy shift, but it would be consistent with their interests (since it reduces the costs of their supplies), and increased power.

However, the retail sector did play a very important role – and interacted intensively with EU policy-makers on regulations and standards on food products – the third component of the 2003 Fischler reforms and a major political item since.

[15] Concerns on abuse of market power and unfair practices in the food supply chain emerged during the food crisis in 2008. The Commission establishment the *High Level Forum for a Better Functioning Food Supply Chain*, which includes different stakeholders from the food supply chain. The Forum agreed on a set of principles of good practices in vertical relationships and launched a voluntary framework for implementing the principles of good practice (the Supply Chain Initiative).

9. Food Safety and Quality Concerns

EU consumers in the 21st century are arguably more concerned about the safety and quality of food than about food prices. These safety concerns were very clear during the food scares that plagued the EU in the second half of the 1990s, such as bovine spongiform encephalopathy (BSE, or "mad cow disease"), food and mouth disease (FMD) and episodes of toxic contamination, including the dioxin crises (Bernauer 2003; Scholderer 2005).

Following the food safety crises in the 1990s, particularly the emergence of BSE in 1996 and the dioxin contamination crisis in 1998, the European Commission launched a new food safety initiative. This resulted in major legislative changes such as the *Basic Food Law Regulation,* including the creation of the European Food Safety Authority (EFSA). The main goal of the new food safety policies was to protect consumer health by the introduction of a farm-to-fork safety approach, imposing strict traceability requirements throughout EU food chains. Not only has the public sector responded to the crises, but there has also been a rapid growth in private sector initiatives in the field of food safety and quality standards. These include the GlobalGAP[16] standard which is now used by a large number of the major retailers in the EU (and the world) (Fulponi, 2007).

While it is uncertain to what extent growing market power by food retailers and processors affected traditional agricultural policies (e.g. the CAP) it is very clear that consumers' quality and safety concerns triggered strong reactions from the food processors and retailers. This included both the introduction of private standards to address concerns that were/are not addressed by public regulations, the pre-empting of public regulations by private standards, and their lobbying to influence

[16] GlobalGAP is a certification scheme with guidelines for the "Good Agricultural Production" of fresh fruits and vegetables.

the nature of public food regulations (McCluskey and Winfree, 2006; Vandemoortele and Deconinck, 2014).

The growth and spread of these food standards has triggered a strong debate in trade policy on the extent to which these standards are new protectionist instruments, i.o. so-called non-tariff measures (NTMs, when the use of tariffs is restricted by the WTO (Beghin, 2013); and in development policy about the potential detrimental effects of these standards on poor farmers in developing countries which risk to be marginalized (Maertens and Swinnen, 2009; Reardon *et al.*, 2003). Swinnen and Vandemoortele (2009, 2012) show that the political coalitions in the public food standards setting can create "under-standardization" and "over-standardization" as political equilibria, depending on external conditions. In a review of these issues, Beghin *et al.* (2015) conclude that the impact on trade and development are complex and often case-specific.

10. New Players and Policies in Agri-Food Value Chains

GM Regulations

One of the most controversial recent policy issues is related to a new technology: genetically modified (GM) agricultural products. One of the most striking observations is the difference in GM regulation between the US and the EU.

Since the end of the 1990s, the EU has followed a precautionary approach in establishing new legislation to regulate GM technology. While for some time this led to a de facto EU moratorium on the approval of GM products both for imports and for domestic production. The restrictions on imports have been reduced since 2003, but the staunch opposition of consumers and anti-GM activist groups in combination with the institutional set-up of the EU's decision-making procedure on genetically modified organisms (GMOs) have led to something like a regulatory gridlock on GM

production in the EU (Swinnen and Vandemoortele 2010).

One key difference between the EU and the US were the regulatory environments and attitudes. When GM emerged as a major policy issue the regulatory environment in Washington DC was dominated by the Reagan-era anti-regulation philosophy (Charles, 2001). In contrast, in the EU the GM policy issues became most important when food safety crises of the 1990s contributed to a great weariness about new food technologies, including genetic modification (Swinnen et al, 2011). As explained elsewhere, the food safety crises had led to several policy initiatives to regulate the food chain. According to survey data (Eurobarometer 2010), EU consumers' optimism about biotechnology was at an all-time low of 24 percent in 1999. It increased since to 77 percent in 2010 (the highest ever), but at the same time 58 percent of consumers still opposed GM food.

A crucial element was the differential role played by various interest groups in the EU and the US. Various groups have tried to influence policy making on GM: activist groups, farmers, biotech innovators, competing input suppliers (chemical companies), etc. Graff, Hochman and Zilberman (2009) argue that the US agribusiness industry has been a much more pro-GM lobbying force than the EU agribusiness industry. A key factor is that some of the most important GM products are effectively competing with the traditional agribusiness products. This applies especially to GM traits which substitute for pesticides and insectides. As a result many of the large agro-pharmaceutical companies, such as Bayer and BASF, were uncertain what side to take in the debate. GM opened up new avenues for profit and commercial avenues in the future, but at the same time potentially undermined their traditional profits.

This was particularly the case in the EU. In the US some of the key companies, both the new GM start-ups – most of who developed in the US – and large traditional agribusiness companies, in particular Monsanto, went all out lobbying for GMO. This created a very different political coalition

in the US than in the EU, contributing to a different regulatory outcome.

Later in the process some of the European agribusiness companies seem to have changed their mind, with BASF introducing some new GM products. However by that time the EU decision process was stuck in a policy gridlock. As a result, BASF and other European companies have moved their GM research capacity and product development to non-EU countries, including the US.

Food, Feed and … Fuel

The late 2000s have witnessed a dramatic introduction of biofuels in agricultural and food markets and policy. The dramatic increase in the use of food commodities (mostly corn in the USA and sugar in Brazil and) in the past decade had a major impact on global markets and on the food policy debate.

The political and policy background to biofuels in the 1990s and early 2000s was very different than today's. With large crop surpluses and low agricultural prices, policymakers were looking for ways to support farmers without the burden of huge subsidies. Using crops for alternative uses was one method of removing such surpluses and boosting prices. At the same time, the Gulf War served as a reminder that countries needed to wean themselves from foreign crude oil sources. Increased recognition of climate change stemming from greenhouse gas emissions presented yet another rationale for moving away from fossil fuels. As a result, both the EU and the US stimulated the development of biofuels. The growth of biofuels was much stronger in the US (mostly corn-based ethanol) than in the EU (mostly biodiesel).

The US biofuels legislation was built on a history of tax exemptions and tariffs (taxes on imports), but the fundamental policy shift was the introduction of mandates for the use of biofuels in transportation—the Renewable Fuels Standard (RFS) in 2005 (Lobell, Naylor and Field, 2014;

Naylor, 2012). The impacts of the US biofuels legislation was large. From 2004 to 2012, the amount of corn used for ethanol increased from about 1.2 billion bushels to about 5 billion bushels. Over 40 percent of U.S. corn use now goes to ethanol. Corn acreage increased by almost one-third, mainly by the replacement of other crops and by taking land out of conservation reserves. Corn prices increased strongly during this period.

After 2007, the policy climate on biofuel changed. The turnaround was triggered by two developments. First, while there is disagreement on the size of the impact, biofuels generally have been an important driver of increasing food prices, which spiked in 2007 and 2008 (de Gorter et al. 2013). Second, biofuels were originally thought of as environmentally friendly fuels, due to their decreased carbon impact relative to fossil fuels. However, indirect effects on land use change (e.g., deforestation) may lead to an increase—rather than a decrease—in greenhouse gas emissions (GHGE). These factors transformed the debate on biofuels.

In response to the recent critiques on biofuels, the EU Commission (EC) proposed what the biofuels industry has described as a policy U-turn. From encouraging this sector through production targets and blending mandates, the EC is now backtracking and seeks to minimize the use of food-crop based biofuels. The new biofuel sustainability requirements of the 2009 Renewable Energy Directive try to limit the impact of biofuels on rising food prices (European Commission 2009). In 2012, the EC published a proposal limiting the use of food-crop based biofuels at 5 per cent of consumption of energy for transport in 2020. However lobbying by various organizations with vested interest in biofuels and higher agricultural prices have led to a postponement of the decision.

Insuring Crops or the Insurance Industry?

Agriculture has always been a risky business as a consequence of uncertain weather, prices, diseases, and pests. Since 2000, however, US agricultural policy has significantly increased subsidies to use insurance instruments to help combat those risks. The crop insurance program is a public-private partnership, in which the government pays half of the insurance premiums of farmers, and agrees also to underwrite some costs of the private insurance companies. Between 2005 and 2012, government budget costs for crop insurance rose sharply, and in 2012, about 90% of U.S. cropland was covered by the Federal Crop Insurance Program (FCIP). In addition to yield coverage, farmers can also purchase revenue-based insurance, which covers several dimensions of price variability.

Not surprisingly, the US insurance industry was an active participant in the discussions on the 2014 Farm Bill. During the 2013 legislative process the insurance industry lobbied senators aggressively and outmanoeveured the advocates for reform, effectively maintaining support for the crop insurance program in the 2014 Farm Bill (Cuellar *et al.*, 2014).

Interestingly, the EU Commission also considered proposing an insurance policy for including in the new CAP. They launched several studies on the issue but concluded that too much of the subsidies would end up with the insurance companies rather than farmers. In addition, the risk of creating new vested interest in future CAP policies through this new instrument reduced their enthusiasm for an agricultural insurance policy. In the light of the aggressive lobbying in the US by the insurance industry this seems like a realistic assessment.

11. Conclusions

Political coalitions have changed over the past decades (and centuries) as economic development implies the relative decline of some sectors in the value chain and the (relative) growth

of others. New technologies have introduced new players into the value chains and new policy instruments have provided incentives for others to join the lobbying game.

In this paper I first reviewed changes in the structure of the agri-food value chains and discussed conceptual reasons why such changes may affect the political coalitions and the resulting policy equilibria. I then reviewed a series of cases how changes in the political coalitions have affected policy outcomes, including historical changes in agricultural protection, the impact of changes in consumer interests in recent decades, changes in concentration in the downstream sectors of the value chains; the growth of environmental interests and emergence of new (bio-)technologies; the growth of biofuels and new policy instruments such as crop insurance subsidies. In general each of these changes has had (sometimes very profound) impacts on agricultural and food policy decisions.

The implication of our review is that studies which ignore the variety and heterogeneity of the actors involved in the value chains, may miss out on important political economy dynamics when interpreting the observed policy outcomes.

12. References

Anderson, K. and S. Nelgen (2013). 'Updated National and Global Estimates of Distortions to Agricultural Incentives, 1955 to 2011'. Washington, D.C., June 2013. (Available at www.worldbank.org/agdistortions website)

Anderson, K., G. Rausser, and J. Swinnen (2013). 'Political Economy of Public Policies: Insights from Distortions to Agricultural and Food Markets'. *Journal of Economic Literature* 51(2) 423-77.

Anderson, K. 1995. "Lobbying Incentives and the Pattern of Protection in Rich and Poor Countries." *Economic Development and Cultural Change*, 43(2): 401–23.

Beghin, J.C., A.C. Disdier, and S. Marette. (2015). "Trade Restrictiveness Indices in Presence of Externalities: An Application to Non-Tariff Measures." *Canadian Journal of Economics*.

Beghin, J.C., Ed.. 2013. *NonTariff Measures with Market Imperfections: Trade and Welfare Implications*. Frontiers of Economics and Globalization Vol 12, Emerald Group Publishing.

Beghin, J., Maertents and Swinnen (2015) Non-tariff measures and standards in trade and global value chains. Annual Review of Resource Economics, vol. 7

Bernauer, T. (2003). *Genes, trade, and regulation*. Princeton, NJ: Princeton University Press.

Cannadine, D. (1992). *The Decline and Fall of the British Aristocracy*. New York NY: Anchor Books.

Cadot , O., J. de Melo and M. Olarreaga, 2004. "Lobbying, Counterlobbying, and the Structure of Tariff Protection in Poor and Rich Countries," World Bank Economic Review, World Bank Group, vol. 18(3), pages 345-366.

Charles, D., 2001, *Lords of the Harvest. Biotech, Big Money, and the Future of Food,* Basic Books, New York.

Ciaian, P., d'Artis, K. and J. Swinnen, 2013, "The Impact of the 2013 CAP Reform on Land Capitalization," *Applied Economic Perspectives and Policy*.

Ciaian, P. and J. Swinnen, 2009, "Credit Market Imperfections and the Distribution of Policy Rents", *American Journal of Agricultural Economics*, 91(4):1124-1139.

Clarke, R., Davies, S. Dobson, P., and Waterson, M. (2002) *Buyer power and competition in European food retailing*. Edward Elgar Publications.

Cuellar, M., Lazarus, D., Falcon, W.P. and R.L. Naylor, 2014, "Institutions, Interests, and Incentives in American Food and Agriculture Policy", in Naylor, R. L. (ed.), *The Evolving Sphere of Food Security*, Oxford: Oxford University Press, pp. 87–121.

Corden, W. M. 1997. *Trade Policy and Economic Welfare*. 2nd ed. Oxford: Clarendon Press.

de Gorter, H., and J. F. M. Swinnen. 2002. "Political Economy of Agricultural Policies." In *The Handbook of Agricultural Economics*, vol. 2, edited by B. Gardner and G. Rausser, 2073–2123. Amsterdam: Elsevier Science.

De Gorter, H., D. Drabik and D.R. Just (2013). 'Biofuel Policies and Food Grain Commodity Prices 2006-2012: All Boom and No Bust?' *Agbioforum*¸ 16(1), 1-13.

Dobson, P.W., Clarke, R., Davies, S., Waterson, M. (2001) Buyer power and its impact on competition in the food retail distribution sector of the European Union. *Journal of Industry, Competition and Trade*, 1(3): 247-81.

La Ferrara, E. 2002. "Inequality and Group Participation: Theory and Evidence from Rural Tanzania." *Journal of Public Economics,* 85(2): 235–73.

Eurobarometer. (2010). 'Europeans, agriculture and the Common Agricultural Policy'. (Special Eurobarometer 336, Wave EB72.5). Brussels: European Commission, Directorate General for Agriculture and Rural Development.

Erjavec, E, Lovec, M. and K. Erjavec. 2015. "Greening or Green Wash ? Drivers and Discourses of the 2013 CAP reforms". In Swinnen, J. (ed.), *The Political Economy of the 2014-2020 Common Agricultural Policy*, CEPS Publications.

European Commission (2007). 'The impact of the developments in agricultural producer prices on consumers'. CM/WM/PB 34703, Brussels.

European Commission (2009). 'Directive 2009/28/EC of the European Parliament and the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC', Brussels.

European Commission (EC). 2014. Agricultural trade in 2013: EU gains in commodity exports. MAP 2014-1.

Francois J. F., D. Nelson and A. Pelkmans-Balaoing (2008). "Endogenous Protection in General Equilibrium: estimating political weights in the EU," Economics working papers 2008-15, Department of Economics, Johannes Kepler University Linz, Austria.

Freund, C., and C. Özden. 2008. "Trade Policy and Loss Aversion." *American Economic Review*, 98(4): 1675–91.

Fulponi, L. 2006. "Private Voluntary Standards in the Food System: The Perspective of Major Food Retailers in OECD Countries." *Food Policy*, 31(1), 1-13.

Gawande, K., and B. Hoekman. 2006. "Lobbying and Agricultural Trade Policy in the United States." *International Organization*, 60: 527–561.

Graff, G.D., Hochman, G., & Zilberman, D. (2009). The political economy of agricultural biotechnology policies. AgBioForum, 12(1), 34-46.

Hart, K. 2015. The fate of green direct payments in the CAP reform negotiaitons: the role of the European Parliament. In Swinnen, J. (ed.), *The Political Economy of the 2014-2020 Common Agricultural Policy*, CEPS Publications.

Hillman, A. L. 1989. *The Political Economy of Protection*. London: Taylor and Francis.

Josling, T. (2008). 'External Influences on CAP Reforms: An Historical Perspective'. In J. Swinnen (ed.), *The Perfect Storm: The Political Economy of the Fischler Reforms of the Common Agricultural Policy.* Brussels: Centre for European Policy Studies, pp 76–82.

Lobell, D. B., R. L. Naylor, and C. B. Field. 2014. Food, Energy, and Climate Connections in a Global Economy. in Naylor, R. L. (ed.), *The Evolving Sphere of Food Security*, Oxford: Oxford University Press, pp. 238–268.

López, R. A. 2008. "Does 'Protection for Sale' Apply to the US Food Industries?" *Journal of Agricultural Economics*, 9(1): 25–40.

Maertens, M. and J. Swinnen, 2009, "Trade, Standards and Poverty: Evidence from Senegal", *World Development*, 37(1): 161-178.

Matthews, A. (2015) "The Multi-Annual Financial Framework and the 2013 CAP reform". in Swinnen, J. (ed.), *The Political Economy of the 2014-2020 Common Agricultural Policy*, CEPS Publications.

McCluskey, J., and J. Swinnen. 2010. "Media Economics and the Political Economy of Information." In *The Oxford Handbook of Government and Business*, edited by D. Coen, W. Grant, and G. Wilson, 643–62. Oxford: Oxford University Press.

Moehler, R. (2008). 'The Internal and External Forces Driving CAP Reforms'. In J. Swinnen (ed.), *The Perfect Storm: The Political Economy of the Fischler Reforms of the Common Agricultural Policy.* Brussels: Centre for European Policy Studies, pp. 76-82.

Naylor, 2012 “Biofuels, rural development, and the changing structure of agricultural demand.” In Falcon, W. and R.L. Naylor (eds) *Frontiers in Food Policy: Perspectives on sub-Saharan Africa,* Stanford (printed by CreateSpace).

Olper, A., and Swinnen, J. 2013. “Mass Media and Public Policy: Global Evidence from Agricultural Policies.” *The World Bank Economic Review* 27, No. 3 (2013): 413-436.

Olson, M. 1965. *The Logic of Collective Action.* New Haven: Yale University Press.

Reardon, T., Timmer, P.C., Barrett, C. & Berdegué, J. (2003). The rise of supermarkets in Africa, Asia and Latin America. *American Journal of Agricultural Economics* 85(5): 1140-1146.

Schonhardt-Bailey, C. 1998. “Interests, Ideology and Politics: Agricultural Trade Policy in Nineteenth-Century Britain and Germany.” In *Free Trade and Its Reception, 1815–1960: Freedom and Trade,* edited by A. Marrison, 63–79. London: Routledge.

Schonhardt-Bailey, C. (2006), *From the Corn Laws to Free Trade. Interests, Ideas and Institutions in Historical Perspective,* (Cambridge MA: MIT Press).

Scholderer, J. (2005). ‘The GM foods debate in Europe: History, regulatory solutions, and consumer response research’. *Journal of Public Affairs*, 5(3): 263-274.

Sheldon, I. (2002). ‘Regulation of biotechnology: Will we ever ‘freely’ trade GMOs?’ *European Review of Agricultural Economics*, 29(1): 155-176.

Shervani, T.A., Frazier, G., Challagalla, G. (2007) The moderating influence of firm market power on the transaction cost economics model: an empirical test in a forward channel integration context. *Strategic Management Journal*, 28: 635-652.

Swinnen, J. F. M. 1994. “A Positive Theory of Agricultural Protection.” *American Journal of Agricultural Economics*, 76(1): 1–14.

Swinnen, J., 2002, “Political Reforms, Rural Crises, and Land Tenure in Western Europe”, *Food Policy*, 27(4): 371-394.

Swinnen J. (2008) (ed.), *The Perfect Storm: The Political Economy of the Fischler Reforms of the Common Agricultural Policy.* Brussels: Centre for European Policy Studies.

Swinnen J. (2009), “The Growth of Agricultural Protection in Europe in the 19th and 20th Centuries”, *The World Economy* 32 (11), pp. 1499-1537.

Swinnen, J. (2011), “The Right Price of Food”, *Development Policy Review* 29(6), pp. 667- 688.

Swinnen, J., 2014, “Political economy of EU agricultural and food policies,” in Naylor, R. L. (ed.), *The Evolving Sphere of Food Security*, Oxford: Oxford University Press, pp. 122–152.

Swinnen, J., Banerjee A., and H. de Gorter, 2001, “Economic Development, Institutional Change and the Political Economy of Agricultural Protection: An Empirical Study of Belgium since the 19th Century”, *Agricultural Economics*, 26(1): 25-43.

Swinnen, J., and H. De Gorter (1993). ‘Why Small Groups and Low Income Sectors Obtain Subsidies: The “Altruistic” Side of a “Self-Interested” Government’. *Economics and Politics*, *5*(3): 285–96.

Swinnen J. and E. Janssen (2014). “Political Economy of Agricultural and (Regional) Trade Policies and Value Chain Performances in sub-Saharan Africa”. World Bank Report Forthcoming.

Swinnen, J., Knops, L. and K. van Herck, 2014, "Food Price Volatility and EU Policies," in Pinstrup-Andersen, P. (ed.), *Food Price Policy in an Era of Market Instability. A Political Economy Analysis*, Oxford: Oxford University Press.

Swinnen, J., Olper, A. and T. Vandemoortele (2012), "Impact of the WTO on Agricultural and Food Policies", *The World Economy* 35(9), pp. 1089-1101.

Swinnen, J. and P. Squicciarini, 2012, "Mixed Messages on Prices and Food Security," *Science*, 335(6067): 405–406

Swinnen, J., Squicciarini, P. and T. Vandemoortele (2011), "The Food Crisis, Mass Media and the Political Economy of Policy Analysis and Communication", *European Review of Agricultural Economics* 38(3), pp. 409-426.

Swinnen, J. and T. Vandemoortele, 2011, "Policy Gridlock or Future Change? The Political Economy Dynamics of EU Biotechnology Regulation," *Agbioforum*, 13(4): 291–296.

Swinnen, J. and T. Vandemoortele, 2011, "Trade and the Political Economy of Food Standards," *Journal of Agricultural Economics*, 62(2): 259–280.

Swinnen, J. and T. Vandemoortele, 2012, "Trade and the Political Economy of Standards," *World Trade Review*, 11(3): 390–400.

Swinnen, J. and A. Vandeplas, 2010, "Market Power and Rents in Global Supply Chains," *Agricultural Economics*, 41(s1): 109–120.

Swinnen, J. F. M., Vandeplas, A. & Maertens, M. (2011), Liberalization, Endogenous Institutions, and Growth: A Comparative Analysis of Agricultural Reforms in Africa, Asia, and Europe, *World Bank Economic Review* 24(3):412-445.

Timmer P.(2009). A World Without Agriculture: The Structural Transformation in Historical Perspective. Henry Wendt Lecture. AEI Press

Tovar, P. 2009. "The Effects of Loss Aversion on Trade Policy: Theory and Evidence." *Journal of International Economics*, 78(1): 154–67.

USDA 2013, "SNAP: Frequently Asked Questions", www.fns.usda.gov/snap

USDA, 2013, Vandemoortele, T. and K. Deconinck, (2014). When are private standards more stringent than public standards? A*merican Journal of Agricultural Economics*, vol. 96, no. 1, pp. 154 - 171.

Vogel, D. (2003). 'The hare and the tortoise revisited: The new politics of consumer and environmental regulation in Europe'. *British Journal of Political Science*, 33(4): 557- 580.

Box 1. A Simple Value Chain

INPUT SUPPLIERS
(incl COMPANIES PRODUCING SEEDS, FERTILIZERS, AGROCHEMICALS, RURAL CREDIT ORGANIZATIONS, LANDOWNERS, …)

FARMS

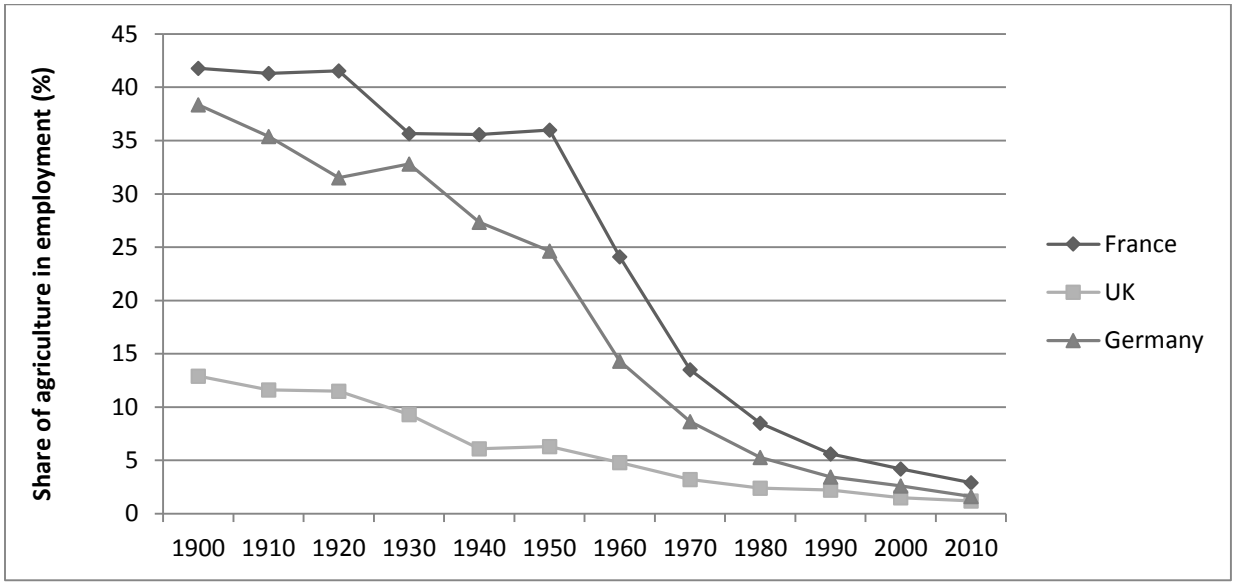
FOOD PROCESSORS

RETAILERS

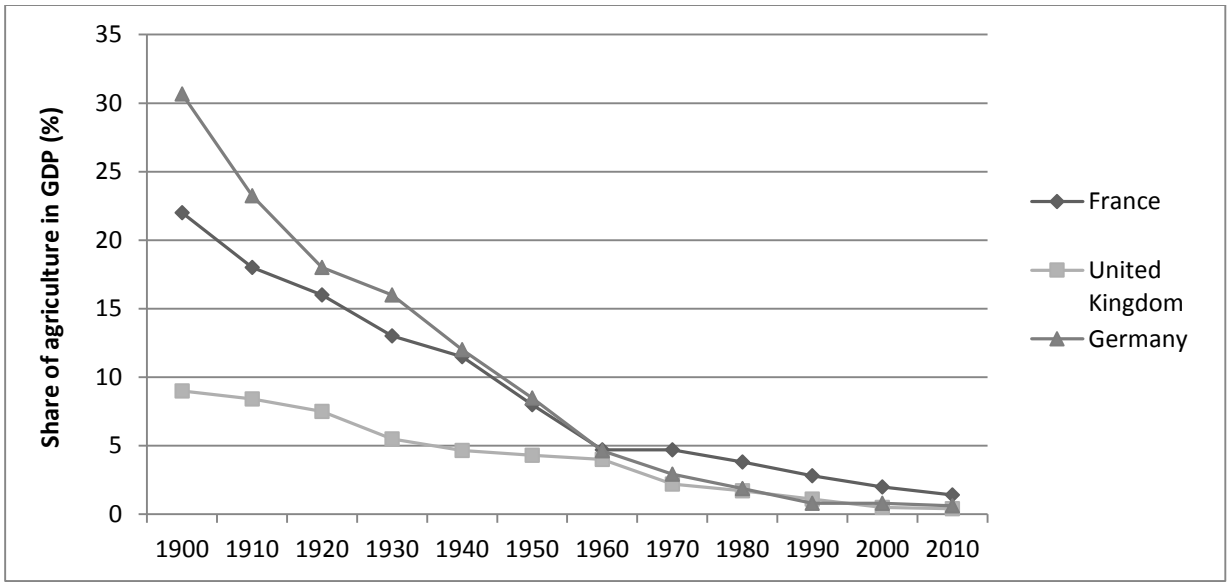
CONSUMERS

Figure 1 : Share of agriculture in employment and GDP (%) 1900-2010

1.a Employment

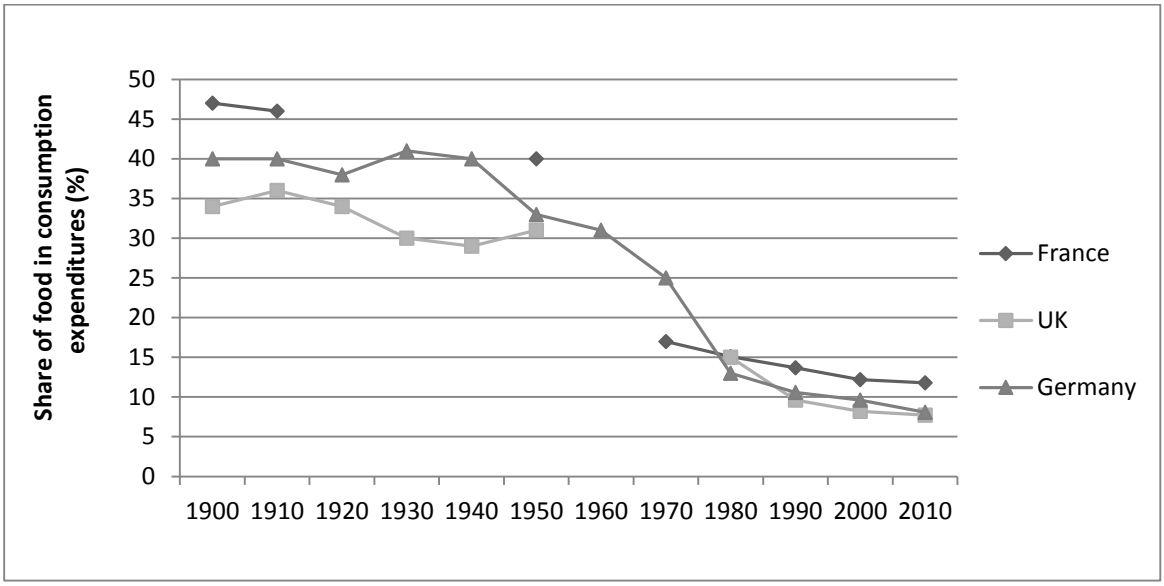


1.b GDP



Source: European Commission, Eurostat, ILO and Swinnen (2009)

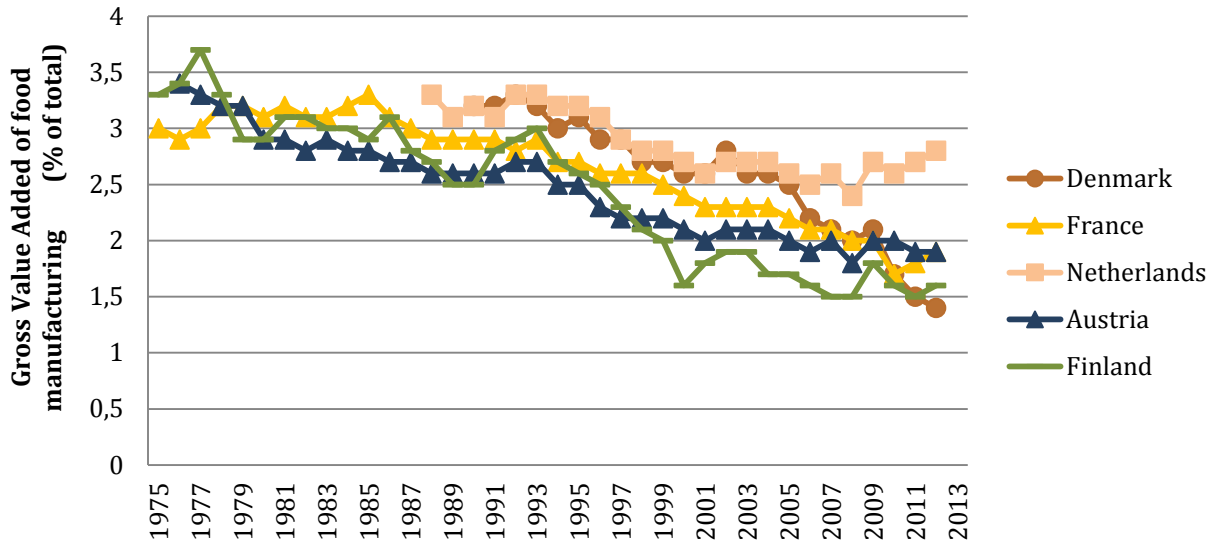
Figure 2 : Share of food in consumption expenditures (%) 1900-2010



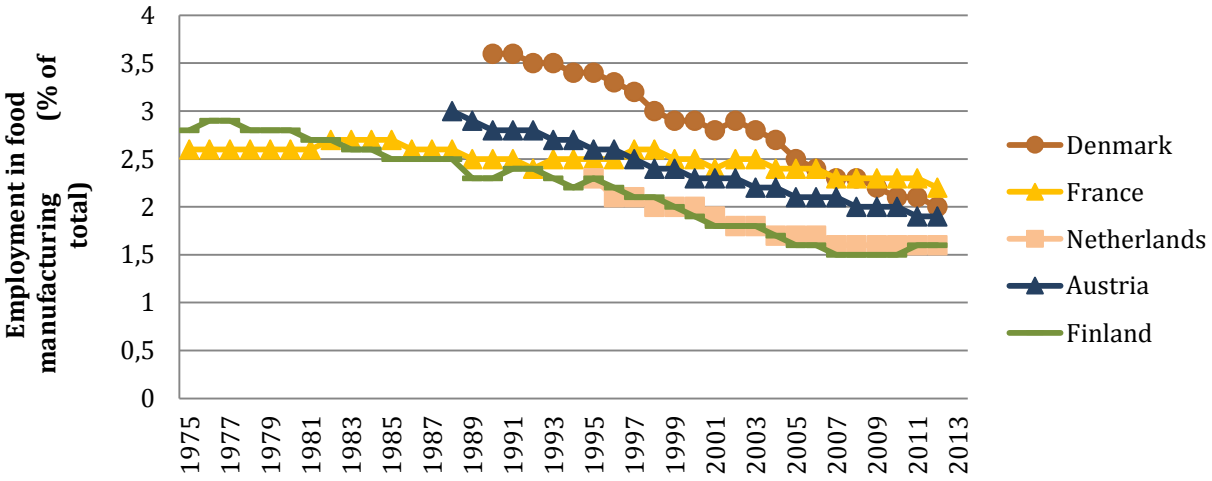
Source: Eurostat and Swinnen (2009)

Figure 3 : Share of Food Manufacturing and Retail in Gross Value Added and Employment in Selected European Countries (%) 1975 - 2013

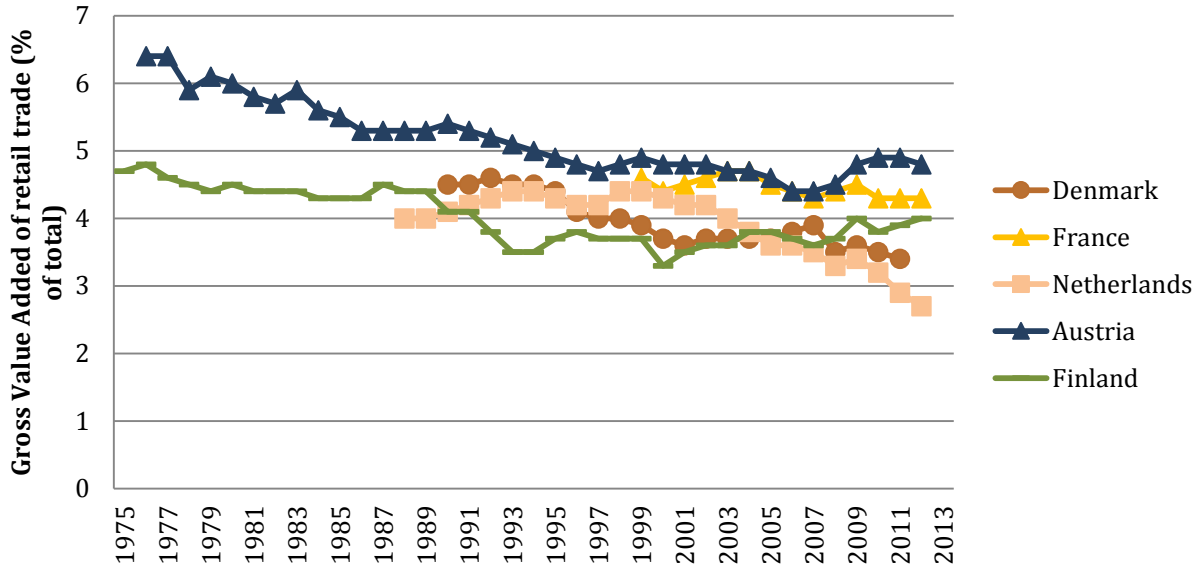
3.a: Share of food manufacturing in GVA (%)



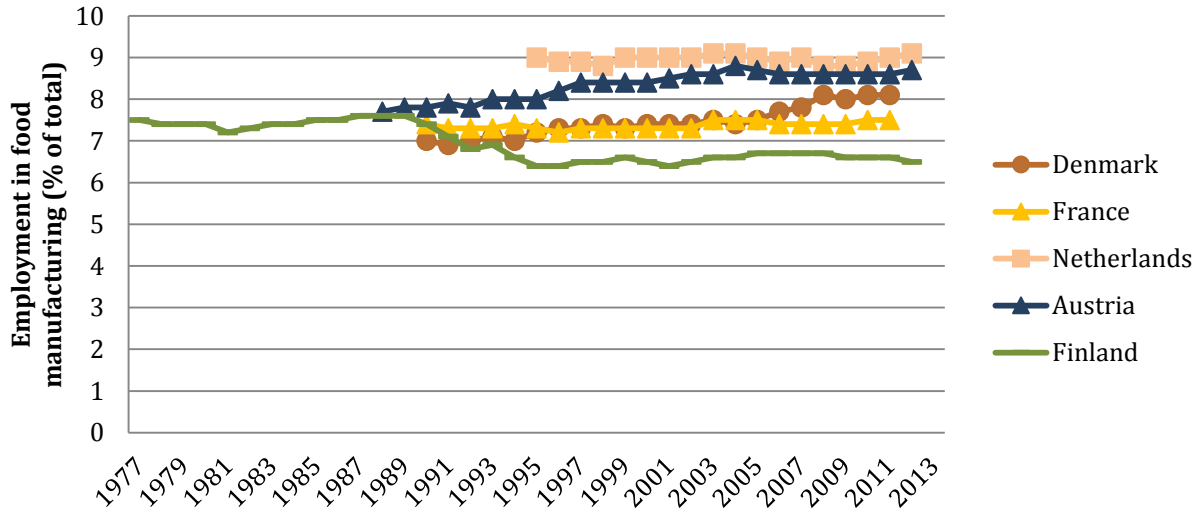
3.b: Share of food manufacturing in employment (%)



3.c: Share of retail trade in GVA (%)

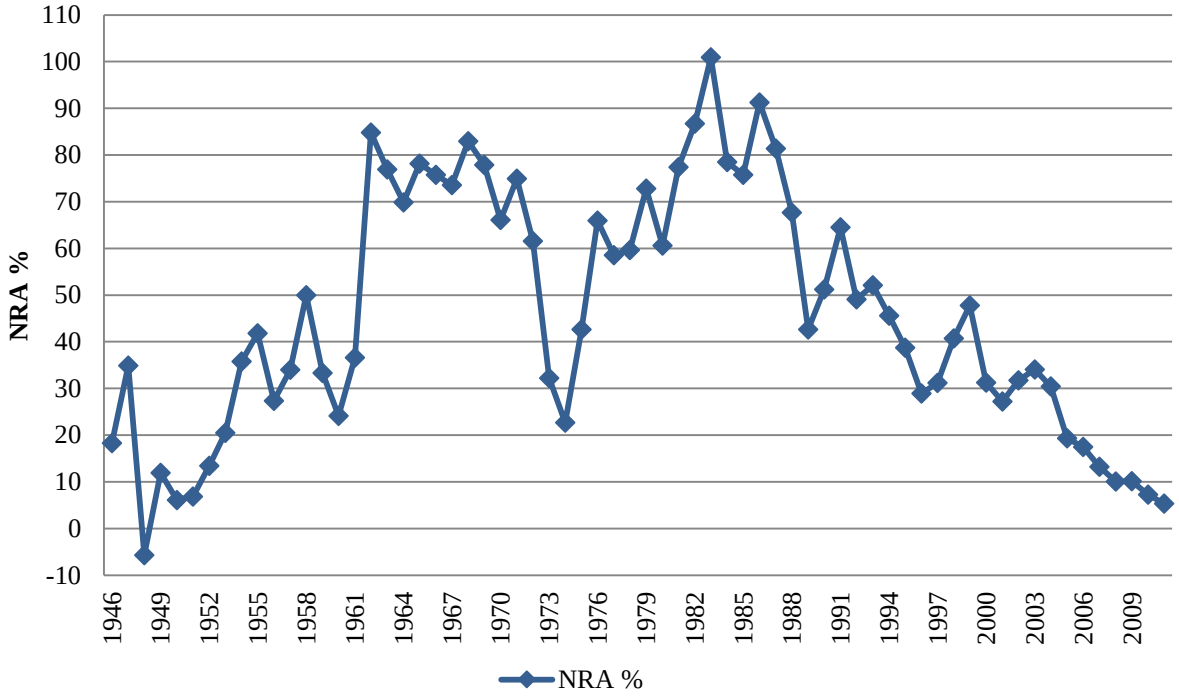


3.d: Share of retail trade in employment (%)



Source: Eurostat

Figure 4: Government Support to Agriculture (NRA) in the EU *



Source : Anderson and Nelgen (2013) and Swinnen (2009)

* NRA = Nominal Rate of Assistance, which is an indicator of government support to agriculture and is measured as the price of a product in the domestic market (plus any subsidy) less its price at the border, expressed as a percentage of the border price (adjusting for transport costs, quality differences etc).